UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/675,545	09/28/2000	Philippe Damon	RAL920000036US1	1166

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EXAMINER
CAO, DIEM K

ART UNIT	PAPER NUMBER
2126	

DATE MAILED: 02/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	⬤	Applicant(s)
Office Action Summary	09/675,545		DAMON ET AL.
	Examiner		Art Unit
	Diem K Cao		2126

-- The MAILING DATE of this communication appears on the cover she t with th correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 December 2003*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *4-18 and 20-34* is/are allowed.

6)☒ Claim(s) *1-3 and 19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *9*.

4) ☐ Interview Summary (PTO-413) Paper No(s). _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

1.   This Office action is in response to the Appeal Brief filed on 12/4/2003.

2.   Claims 1-34 remain in the application.

3.   In view of the Appeal Brief filed on 12/4/2003, PROSECUTION IS HEREBY

REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following

two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37

CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a

supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or

other evidence are permitted. See 37 CFR 1.193(b)(2).

Allowable Subject Matter

4.   Claims 4-18 and 20-34 are objected to as being dependent upon a rejected base claim, but

would be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted

Prior Art (APA) in view of Russell (U.S. 6,349,388 B1) further in view of Cook (U.S.

5,621,892).

7.   **As to claim 1**, APA teaches (page 2) an application program interface (timer

management program) providing a set of synchronous functions allowing an application to

functionally operate a timer (managing a plurality of timers … data processing system), a timer

expires (timer expires).

8.   However, APA does not explicitly teach a timer database for storing timer-related

information, and a timer services for detecting the expiring of the timer, a handler function of the

timer services allows the application to act on an expired timer without incurring an illegal time-

out message.

9.   Russell teaches (col. 4, line 33 – col. 5, line 47) a timer management system (timer

processing engine 200), a data structure for storing timer-related information (timer data

structures 204), and a timer services for detecting the expiring of the timer (a comparator 208, a

timer state machine 206). Although Russell does not teach a database to store timer related

information, Russell suggests a data structure could be a table (table or linked list of tables; col.

6, lines 20-38). It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine the teaching of APA and Russell because it provides a scalable

approach to supporting an arbitrarily number of timers and reduces the typical processor

overhead and hardware overhead involved in managing timers (col. 2, lines 27-31).

10.   Cook teaches an event management software provides functions to act on timed events

(event management software 222 ... predefined dates and times). By acting on the timed events

on time, Cook system obviously will not incurring illegal time-out message. It would have been

obvious to one of ordinary skill in the art at the time the invention was made to combine the

teaching of Cook and APA because it provides a method for managing events in the system.

11.   **As to claim 19**, APA does not explicitly teach the API is a DLL file. Cook teaches a user

interface portion of alert generators is implemented as a DLL. It would have been obvious to one

of ordinary skill in the art at the time the invention was made to combine the teaching of APA

and Cook because utilizing DLL improve the performance of the system because a DLL can be

used by several programs at the same time.

12.   Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted

Prior Art (APA) in view of Russell (U.S. 6,349,388 B1) and Cook (U.S. 5,621,892) further in

view of Dorn et al. (U.S. 6,012,081).

13.   **As to claim 2**, APA does not explicitly teach creating the timer from an allocated block

of system memory, activating the timer, and reinitializing the timer using the allocated block of

system memory. Dorn teaches creating the timer from an allocated block of system memory (timer slot; col. 8, lines 41 - 64), activating the timer (a timer will be instantiated; col. 13, lines 55 – col. 15, line 12). However, Dorn does not explicitly teach reinitializing the timer using the allocated block of system memory. Dorn teaches the slot is reusable. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Dorn and APA because it provides a service and event synchronous/asynchronous system.

14.   **As to claim 3**, APA teaches (page 2, lines 10-19) when the timer expires (timer expires), the timer management system sends synchronously a time-out message to the application (the application is notified … timer message).

15.   However, APA does not explicitly teach creating the timer from an allocated block of system memory, activating the timer, wherein the time-out message is sent using the allocated block of system memory. Dorn teaches creating the timer from an allocated block of system memory (timer slot; col. 8, lines 41 - 64), activating the timer (a timer will be instantiated; col. 13, lines 55 – col. 15, line 12), the time-out message is sent using the allocated block of system memory (callback function; col. 14, lines 17-28 because the callback function is stored in the slot timer, and the dispatcher invokes the callback function, therefore, the time-out message is sent using the same block of memory).

16.   It would have been obvious to one of ordinary skill in the art at the time the invention

was made to combine the teaching of Dorn and APA because it provides a service and event

synchronous/asynchronous system.

17.   Claims 1 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted

Prior Art (APA) in view of Russell (U.S. 6,349,388 B1) further in view of Kampe (U.S.

6,618,805 B1).

18.   **As to claim 1**, APA teaches (page 2) an application program interface (timer

management program) providing a set of synchronous functions allowing an application to

functionally operate a timer (managing a plurality of timers ... data processing system), a timer

expires (timer expires).

19.   However, APA does not explicitly teach a timer database for storing timer-related

information, and a timer services for detecting the expiring of the timer, a handler function of the

timer services allows the application to act on an expired timer without incurring an illegal time-

out message.

20.   Russell teaches (col. 4, line 33 – col. 5, line 47) a timer management system (timer

processing engine 200), a data structure for storing timer-related information (timer data

structures 204), and a timer services for detecting the expiring of the timer (a comparator 208, a

timer state machine 206). Although Russell does not teach a database to store timer related

information, Russell suggests a data structure could be a table (table or linked list of tables; col. 6, lines 20-38). It would have been obvious to apply the teaching of Russell to the system of APA because it provides a scalable approach to supporting an arbitrarily number of timers and reduces the typical processor overhead and hardware overhead involved in managing timers (col. 2, lines 27-31).

21. Kampe teaches an MCEC filters out the stale event, therefore the system will not incurring illegal messages. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Kampe and APA because it provides a method to avoid unnecessary or ineffective error messages.

22. **As to claim 19**, APA does not explicitly teach the API is a DLL file. It would have been obvious to one of ordinary skill in the art by the time the invention was made to implement the API as a DLL because utilizing DLL improve the performance of the system because a DLL can be used by several programs at the same time.

23. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art (APA) in view of Russell (U.S. 6,349,388 B1) and Kampe (U.S. 6,618,805 B1) further in view of Dorn et al. (U.S. 6,012,081).

24. **As to claim 2**, APA does not explicitly teach creating the timer from an allocated block of system memory, activating the timer, and reinitializing the timer using the allocated block of

system memory. Dorn teaches creating the timer from an allocated block of system memory (timer slot; col. 8, lines 41 - 64), activating the timer (a timer will be instantiated; col. 13, lines 55 – col. 15, line 12). However, Dorn does not explicitly teach reinitializing the timer using the allocated block of system memory. Dorn teaches the slot is reusable. It would have been obvious to apply the teaching of Dorn to the system of APA because it provides the programmers not to bother with the low level details.

25.   **As to claim 3**, APA teaches (page 2, lines 10-19) when the timer expires (timer expires), the timer management system sends synchronously a time-out message to the application (the application is notified ... timer message).

26.   However, APA does not explicitly teach creating the timer from an allocated block of system memory, activating the timer, wherein the time-out message is sent using the allocated block of system memory. Dorn teaches creating the timer from an allocated block of system memory (timer slot; col. 8, lines 41 - 64), activating the timer (a timer will be instantiated; col. 13, lines 55 – col. 15, line 12), the time-out message is sent using the allocated block of system memory (callback function; col. 14, lines 17-28 because the callback function is stored in the slot timer, and the dispatcher invokes the callback function, therefore, the time-out message is sent using the same block of memory).

27.   It would have been obvious to one of ordinary skill in the art at the time the invention

was made to combine the teaching of Dorn and APA because it provides a service and event

synchronous/asynchronous system.

Conclusion

28.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Diem K Cao whose telephone number is (703) 305-5220. The

examiner can normally be reached on Monday - Thursday, 9:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng-Ai An can be reached on (703) 305-9678. The fax phone number for the

organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

MENG-AL T. AN
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Diem Cao